Date: 08 March 2018

Our feet ni23/1766 of beautilevel leading to all and each bicode house that each being enditivity of the sites concerned. Your ref: Click here to enter text.

Ansider other sources of all pollution in combination with the proposal at the out not only those within the existing facility. The applicant should secure existing data from the site operator to provide a realistic check of existing levels. In addition the applicant should check other EA permitted shurces which may contribute to existing pollular sectors. Particle with the spollular sectors with the sectors of t

BY EMAIL ONLY

Crewe Business Park

Table 2. referewards confuned stack height for the two EFVV stacks of 42m; does this mean that there are welldein stacks, two placks, which are 2 km or two stacks of different helights which when combined 4984W22m2

P7. It is not clear what the reference to "conservative emission rates" actually means and should be clarified. Does this mean a low figure has been assumed per sa or that a low figure from velicing an ission similar plants which have been monitored has been taken? Or is the maximum achievable emission

Planning consultation: DAS31717 231766 Potential Parley ERF Report reddings slideling of the start Location: Christchurch, Dorset

The SBB stack (15m) is considerably lower than the EFN stacks an

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future Why have you used Eleck Flow referentiation development reference with pullfulling to subtainable development reference with the property of t 27 The assessment should use or at least compar

This advice is being provided as part of Natural England's Discretionary Advice Service. AECOM Infrastructure & Environment UK Limited has asked Natural England to provide advice upon:

Review a written report concerning the effects of operating an ERF facility with a SBB facility at West Parley on nearby European and Internationally protected sites.

This advice is provided in accordance with the Quotation and Agreement dated 21/12/2017.

The following advice is based upon the information within Pariey ERF Air Quality Report 171110

The summary findings are that the report has not considered a number of key aspects: 19 postales and

Effects in-combination with other processes on the site or other processes currently permitted by the Environment Agency in the surrounding area. To include vehicle

movements generated.

Additional ecological advice should be sought in respect of consideration of effects and

potential mitigation.

The applicant should carry out data searches from the Local Records Centre and source any existing Management Plans eg Merritown Heath (DCC) which may assist in assessing the sensitivity of the sites.

There are serious concerns about predicted increased levels of NOx, Ammonia, Nitrogen The applicant should consider the benefits which may be served from redesign and principle applicant should consider the benefits which may be secured from redesign the use of the benefits which may be secured from redesign to the use of the benefits which may be secured from redesign to the use of the benefits which may be secured from redesign to the use of the benefits which may be secured from redesign to the use of the benefits which may be secured from redesign to the use of the benefits which may be secured from the benefits and the benefits which may be secured from the benefits and the benefits which may be secured from the benefits which which we see the benefits which which we see the benefits and the benefits which which we see the benefits and the benefits which we see the benefits and the benef proposed plant layout and specifications as well as incorporating air pollution reduction should consider a site visit to asses conditions at specific locations where existing seriussemetal is Likely benefits from a previous permission which reduced emissions will be lost through to the increased levels of pollutants. a similar number of locations are exceeding a 1% PC.

I enclose a review document relating to a previous application on the site which provides useful on the need to consider other contributions in-combination. The applicant is indicating that changes in Previously, a reconfiguration application reduced air pollution levels by scaling down both the volume. of composting but also therefore the number of heavy vehicle movements. The new proposal should consider the increase in vehicle movements involved in operating the facility anarod amend and increase in vehicle movements involved in operating the facility anarod amend and increase in vehicle movements involved in operating the facility anarod and increase in vehicle movements.

08 March 2016 Natural England advise that the report should use the 1% of Critical Level/Load to screen in or out effects given the sensitivity of the sites concerned.

The report must consider other sources of air pollution in-combination with the proposal at the outset particularly but not only those within the existing facility. The applicant should secure existing historic monitoring data from the site operator to provide a realistic check of existing levels. In addition the applicant should check other EA permitted sources which may contribute to existing pollutant levels.

Stack height and flow rates

Table 2, refers to a combined stack height for the two EFW stacks of 42m, does this mean that there are two 42m stacks, two stacks which are 21m or two stacks of different heights which when combined equal 42m?

P7. It is not clear what the reference to "conservative emission rates" actually means and should be clarified. Does this mean a low figure has been assumed per se or that a low figure from a range of similar plants which have been monitored has been taken? Or is the maximum achievable emission rate with suitable scrubbers,etc? The 1mg/m3 figure requires context and justification primary

The SBB stack (15m) is considerably lower than the EFW stacks and is north east of the new building (34m) which may affect the dispersion of pollutants and should be investigated signal leader.

why have you used Stack Flow reference conditions rather than the actual conditions given in Table 2? The assessment should use or at least compare referenced flows against actual conditions one would assume? Natural England advises the worst case scenario should be used which appears to be the actual flow figure. Table 4 should include a column for total emission from the two stacks in-Review a written report concerning the effects of operating an ERF facility with a netheniding

at West Parley on nearby European and internationally projected sites.

NOx

The State of the second and the second and the second accordance of the therefore the range of % increases from table 9, 1.3-15.4% of Critical Levels is a concern which raises consideration of LSE. The report gives PEC % CLe ranging from 45-69% without considering the existing processes or additional vehicle movements at this time. Natural England advise that 70% of the Cle is an appropriate margin below which LSE may be considered acceptable.

permitted by the Environment Agency in the surrounding area. To include vehicle mreT hod? Similar points arise in that the existing process contributions need to be added in to an incombination figure. At six points over 70% of the Cle is being received by the sensitive sites.

The applicant should carry out data searches from the Local Records Centre abixolb runquis The PEC is less than 70% of the Cle's o this is not significant. If go analy the measure the period of the Cle's of the cl sensitivity of the alles.

There are schous concerns about predicted increased levels of NOx, Ammonia, Nitsinomma Natural England advise that the report should consider a Critical Level of 1 udm's as well as 3 udm's because of the sensitivity of the receptor sites, which include lower plants and lichen species which are more sensitive than higher plants and the need for a precautionary approach. The applicant should consider a site visit to asses conditions at specific locations where existing sources of data is not adequate. Currently a number of locations are exceeding the 70% Cle with a 3 ugm 3 Level and l levels of pollutants. a similar number of locations are exceeding a 1% PC.

l'enclose a review document relating to a previous application on the (si eldat) notitied que ne provious application on the (si ellating to a previous applicat Natural England advise that the lower CLo of 10kg/ha should be used and that the applicant will need to consider other contributions in-combination. The applicant is indicating that changes in vegetation composition are likely and so Natural England is not able to rule out adverse effects on the designated sites. Ecological input would be advisable in assessing likely effects to vegetation and lower plants/lichens. Further such effects often occur following a perturbation of the vegetation

such as fire where upon the operation giving rise to the changes is already permitted and restoration against the driver of increased nutrient nitrogen would be difficult to achieve and uncertain to deliver due to resourcing of costs. In some locations there is over 200% of the proposed Critical Load following operation of the proposal.

Acid deposition (Table 14)

The report notes current high background levels but the increases shown are significant leading to predicted 150- 200% of the Critical Level. Natural England cannot conclude that there will not be adverse effects on the soil buffering capacity and also Aluminium ion mobility which will adversely affect lower plants and lichens due to acidification.

The sites Conservation Objectives indicate that where the features are not in favourable condition there should be a requirement to restore rather than simply maintain them.

The report should indicate the likely areas of the protected sites likely to be subject to levels of air pollution exceeding the Critical Load/Levels as well as the receptor points identified.

This document provides an overview of the assessment that was undertaken to GF The advice provided within the Discretionary Advice Service is the professional advice of the Natural England adviser named below it is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural Englanded

comprehensive planning application is detelled assessment was underston of the potential impact of emispect for concerns raised would welcome further discussion on the specific concerns raised and site-specific Critical Loads.

Yours.sincerely, advantages in entistics of nitrogen disade, avisate the comprehensive result of the comprehensive reduction from abtition control out or the Eco site as a result of the comprehensive reduction assessment of the assessment of the information of the impact of entistics from the following illerities done the interest of entistics from the following illerities done the interest of t

Conservation and Planning Lead Advisor at second is to note the part of the antisense of an expensive Dorset and Hampshire Team of only in the antisense of the part of the antisense of the anti

Toti-apolitation - a DMRS assessment viss underteken to calculate increases in annual avarage nitrogen dioxido concernations at specific locations within the healthand habitat. The assessment was based dioxido concernations at specific locations and cut of the Eco site following the moderate haveneens into and cut of the Eco site following the moderate papers.

Reduction in emissions due to the decommissioning of four existing diesel generators operated to supply the 910 MWinfannum electricity requirements of the Eco alia.

Reduction in emissions due to the decommissioning of the current in-Vessel Composing plant with transfer of waste materials to a new dedicated Ancemble Digestion (AD) grant. The AD plant will generate tool grade bloecheture for direct injection into the national discretific pit on there will be no emissions of combustion pollutants as night be the case a the biosnathans were to be unitsed as a fact in a gas engine power generation system.

Reduction in emissions of ammonia due to a collection in the quantity of green waste compressing carried.

Enropmentar Etal, August 190 rd	ir Quday Akseesmer 1 GF	r Application - Demand A	Comprehensive Planning
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such as fire where upon the operation giving rise to the changes is already permitted and restoration - equinst the driver of increased nutrient nitrogen would be difficult to achieve and uncertain to deliver

GF Environmental Limited

pollution exceeding the Onticat Loga/Levels as well as the receptor points identified.

(A) Side 18 Alcotts Green

The truthing the current high background levels but the increases shown are significant leading to respectively construct the control of the Critical Level. Natural England cannot conclude that there will not be respectly and also Alyminium for mobility which will adversely also acidification.

gfynes@gf-environmental.co.uk

The<mark>du.co.lstitemnotive-to.www</mark>jectives indicate that where the features are not in favourable condition there should be a requirement to restore rather than simply maintain them.

Re: Air Quality Implications for the Dorset Heathland Habitat of the Comprehensive

This document provides an overview of the assessment that was undertaken by GF Environmental/Ltdl of the impact on the surrounding Dorset Heathland habitaty of pollutant of emissions associated with the proposed comprehensive re-development of activities on the Economissions associated with the proposed comprehensive re-development of activities on the Economissions associated with the proposed comprehensive re-development of activities on the Economission Sustainable Solutions (Eco) site in Chapter Parley Theoresults from the assessment of the proposed in Chapter Parley Theoresults from the assessment of the proposed in response to consultation comments are received from Natural England who requested that the basis for the assessment and the principal conclusions should be provided as a non-technical summary.

Introduction

The Eco site is situated adjacent to the Dorset Heathlands SPA, SAC and SSSI, which is designated for the protection of the heathland habitat that grows on the nutrient deficient soils of the area. The heathland habitat is sensitive to nutrient nitrogen deposition as well as to the toxic effects of exposure to conventional pollutants emitted by all combustion processes, including the internal combustion engines associated with transportation. The comprehensive re-development of the Eco site involves the installation of a number of processes with the potential to increase emissions to atmosphere from the site that might be harmful to the surrounding heathland habitat. Accordingly, as part of the detailed air quality assessment undertaken to support the comprehensive planning application, a detailed assessment was undertaken of the potential impact of emissions on the surrounding heathland habitat, in relation to relevant Critical Levels and site-specific Critical Loads.

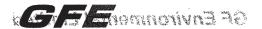
The assessment was based upon net changes in emissions of nitrogen dioxide, ammonia and of sulphur dioxide from activities carried out on the Eco site as a result of the comprehensive redevelopment. The assessment considered the impact of emissions from the following activities:

- Increase in emissions due to the operation of a Biomass Energy Facility (BEF) that will generate heat and open via the combustion of recovered waste wood brought to the Eco site from Civic Amenity sites throughout Dorset. The BEF was previously approved under Planning Ref. 8/13/0404. However, the impact of the facility on air quality is included in the assessment in order to provide a comprehensive overview of all the processes across the site;
- Increase in emissions due to the operation of a smaller clean biomass combustion plant that will burn non-waste biomass fuels to generate hot water for process heating applications on site;
- Transportation a DMRB assessment was undertaken to calculate increases in annual average nitrogen
 dioxide concentrations at specific locations within the heathland habitat. The assessment was based
 upon projected vehicle movements into and out of the Eco site following the re-development of the Eco
 site.
- Reduction in emissions due to the decommissioning of four existing diesel generators operated to supply the 910 MWhr/annum electricity requirements of the Eco site;
- Reduction in emissions due to the decommissioning of the current In-Vessel Composting plant with transfer of waste materials to a new dedicated Anaerobic Digestion (AD) plant. The AD plant will generate fuel grade bio-methane for direct injection into the national distribution grid so there will be no emissions of combustion pollutants as might be the case if the bio-methane was to be utilised as a fuel in a gas engine power generation system;
- Reduction in emissions of ammonia due to a reduction in the quantity of green waste composting carried

2 http://www.apis.ac.uk/

¹ Comprehensive Planning Application - Detailed Air Quality Assessment. GF Environmental Ltd. August 2014

http://www.scail.ceh.ac.uk/cgi-bin/combustion/input.pl



becauseout on site from the current ~35,000 fpa tor~30,000 fpa. Pinchans and leader grabacquerios soft

The cumulative reduction in throughput arising from the above changes to the composting activities will result in an ~35% reduction in the current quantities of material being open air composted across the site, with associated reductions in emissions of ammonia and hitrogen deposition.

Assessment Criteria

The assessment was carried out in terms of statutory critical levels for oxides of nitrogen, sulphur dioxide, ammonia and hydrogen fluoride. Reference was also made to location-specific Critical Loads for Nitrogen (kgN/ha/yr) and Acidity (keq/ha/yr) deposition. Assessment criteria were based on Critical Loads defined by the Air Pollution Information System website², as well as information from the SCAIL (Simple Calculation of Atmospheric Impact Limits) website³ provided by the Environment Agency for the location of the Eco site. Background air quality data for NO_X and SO₂ were taken from the Christchurch BC section of the DEFRA 2011-based Background Maps website⁴, as well as from the SCAIL website.

Critical Levels Assessment

An initial assessment has been undertaken of Critical Levels in line with the recommendations in Table B4 of the Environment Agency's Horizontal Guidance Note H1 Annex F for oxides of nitrogen, sulphur dioxide, ammonia and hydrogen fluoride at the ecological habitat receptors. The results are shown in the table below.

Table 1 Critical Levels Assessment for Oxides of Nitrogen (NOx) and Sulphur Dioxide (SO) — era obtrocumulative impact of the BEP and the Clean Blomass Plant to above the new of benegative Critical Levels at all of the above include area and can be screen.

A	nnual Nox PC	% Critical Level	Daily NOx PC	% Critical Level	Annual 80, P	C % Gritical Level
HL01	(ug m 7) 0.73	2.4%	6.1	.8%	0.24	t snot eve ff.]/m ate th
HL02	0.99	3.3%	4.8	6%	U.SZ	1.070
HL03	1.63	5.4% @DB0	ile Crojonai Li	109918%)18 0	1 0 110 55 1	Depositi on A₍₈₃₀essmen
HL04	1.49 ap :	DATO 5.6% OT A	12.4w ())-	17161760 .C) (O :49) (O	The depositio%4:4-locition
HL05	4.65	15,5%	38,6	i hri .51% ero i	ൻ എ ി.35 ഡ്	(See below), %9,8, deposit
HL06	1.52	5.1%	29.2	nolis 39% iolgi 16% iolgi	h. [1] Patroce	for the Desself at the
HL07	0.58	1.9%	12.1	and the street in which the same in the self-base.		
HL08	1.80	6.0%	30.8	2000 41% 1601	1 00 2 0.59 110	cleV nc29%qeQ E slas?
HL09	0.62	2.1%	11.8	16%	0.20	1.0%
HL10	0.35	1.2%	6.3	8%	0.11	0.5%
HL11	0.34	1.1%	6.0 💢	8%	0.11	(bruse 0.5% blood) heavily
HL12	0.21	0.7%	5.2	7%	0.07	(bnsib 03% space a power
HL13	0.16	0.5%	2.8	4%	0.05	Consection of the Content of the Con
HL14	0.14	0.5%	2.5	3%	0.05	0.2%
HL15	0.18	0.6%	2.5	3%	0.06	0,3% Conversion (Control

As can be seen, the annual average NO_x Process Contribution is greater than 1% of the annual NO_x Critical Level at several of the ecological receptor locations. However, with an estimated annual average NO_x concentration for the area of ~17 µg m³, the estimated Process Contributions are unlikely to result in an exceedence of the Critical Level at this location, and can be screened out as insignificant.

A similar situation exists for the daily average NO_x Process Contributions where estimated Process Contributions are all well below the Critical Level value of 75 Hg m to stab boot issuin a

Annual average SO₂ process contributions are <1% of the 20 µg m³ Critical Level at all but the nearest receptor locations, and where the Process Contribution is more than 1% of the Critical Level the highest value, which is at Receptor HL05, represents 7% of the Critical Level in view of the fact that the estimated annual average SO₂ concentration for the area is 72.2 µg m³ the estimated Process Contributions are unlikely no result domain exceedence of the SO₂ critical Level, and can be screened out as insignificant, yours an insmelling has nowed yet because but 30

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² http://www.apis.ac.uk/

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⁴ http://uk-air.defra.gov.uk/data/lagm-background-maps?year=2011 and A one gaing individual to the gains and the control of th

nar De screense out as insignificant



The corresponding values for ammonia and hydrogen fluoride are based upon an assumed ammonia concentration in the emissions to atmosphere of 1 mg Nm³, and for HF emissions from the BEF at the IED ELV of 1 mg Nm³.

Table 2 | Critical Levels Assessment for Ammonia (NH₃) and Hydrogen Fluoride (HF) Due to league Emissions from the Biomass CHP Plant

RADORGIE GOLDONIOS PARADO	SOMEON DE MONTO DE M	SSASSA COMPANIA PARADEDAN MAGNISARANA	na pilitairatematicamenterinamenterinamenterina et			<u>sininii ino</u> m	Debes A
A	nnual NH, PC	% Critical Level	Daily HF PC	% Critical Level	Weekity HF PG	Gritical Level	The as :
	(µg m²)		(LG DI)		113 (11.)		2000 21 FT
HL010 (a)	0.000601076	DBT 0.2%	N 0.0108	00.5%	1010/01012 is sinc	2.3%9DIXO10	runglus -
:HL02 10	nk 0:008 -55-A	.noi 0.3% neb	(17/10 0.02 .H) 7	iibio 0,4% ic (1)	Aeri (10014) neno	mil/ 2.3% absol	Critical
HL03	0,012	18V 0.4% 11. (1)	0.04	C 1/A0.9% Vel 1	oenit 9.017 bsc. 1	1. 1 3.3% 110 tile	sd erew
HL04	0.015	omi 0.5%	1014 0.06 (10)	isluo j.2% olga	n(≥) 0,035)≥ ort	. n 7.9% nonsin	es infor
HL05	0.042	1.4%	0.19	3.9%	0.095	18.9%	Control Commen
HL06	0.014	0.5%	0.14	3.9% 2.7%	0:049	0 18.9% (11 V) 1 9.8%	WOUNDER!
HL07	0.005	0.2%	0.05	1.0%	111010.012	2.5%	575 HH
HL08	0.014	0.5%	All Verionite	ିଟ ଓ 10% ପର୍ମାଟ	© 1000.062 US	10/12/4% M Drin	Backgro
HL09	0.005	0.2%	0.05	1.0%	0.021		
HL10	0.003	0.1%	A CONTRACTOR OF STREET CONTRACTOR OF STREET	enter and the state of the stat		aso <mark>4.2%</mark> alovo.!	la activa
		 A control of the contro	0.03	0.5%	0.011		
HUMONE	0:003	ent 0.1% enti	mi at 0.03 lac	0.6%	19bn 0.012 ed zer	i in 2.5% eeser i	ration on
HL12	73 0.0023 VASS	MOTONIA ANDIA		ann 9.4% / Siv			E aldaT
HL13	0.001	0.04%			0.004		
HL14	0.001	0.04%	ic 991000	1900 0,2% brit 0. 2% brit	ide, al tigre inia .	xoi 0.7% rights	nitrogen
Access of Market Control of State (1977)	 If the place of the property of t	ACT OF THE PROPERTY OF THE PRO	0.01	3327	0.003	mur.4.976 esta atti	Charloud?
HL15	0.001	0.05%	0.01	0.2%	0.004	nw83% era ailu	(2000)

As can be seen in the above table, Process Contributions of ammonia and hydrogen fluoride are well below their respective Critical Levels at all of the above habitat sites, and can be screened out as insignificant.

It should be borne in mind that these results are based upon a series of worst case assumptions that may overestimate their significance by an appreciable margin, as discussed earlier.

Deposition Assessment Relative to Site-Specific Critical Loads

The deposition velocities for NO₂, SO₂, NH₃ and HCI were taken from AQTAG 06, apart from HF (See below). The deposition rates for grassland habitats were used as the basis for assessment for the Dorset Heathland habitat receptor locations.

Table 3 Deposition Velocities Used in Calculations

Substance	4.20	9/53	0.14	21 S	6.62	60.16
Nitrogen Dioxide (Grassland)	110	Leposit	on Velocity (mm/s)	Maid (201)	20.0	141.1C
Nitrogen Dioxide (Woodland)	ito	., 0 €	1.5	Mag weit.	147.43	(1.48)
The reserve of the control of the co	10.0	767	3.0	0.7°,	180	\$4.31
Sulphur Dioxide (Grassland)	0.05	MA	12.0	Mara are a	ar u	CEJE
Sulphur Dioxide (Woodland)	20.0	M60		78. E2.0	.b/O	1.4 11.4
Ammonia (Grassland)	80.0	9000	20.0	ZZ 1200	5.70	FR 15
Ammonia (Woodland)			30.0			
Hydrogen Chloride (Grassland)	on is great	ass Contributi	00 25.0 , OM 906	abve hourans e	n by seen. Inc	risci eA
Hydrogen Chloride (Grassland)	ations Haw	ant votagner	an 60.0	in involved in	Jove Lientini	5 7314
Hydrogen Fluoride (Grassland)	Property T	t- to case	2.0, A HATTE	Mariana (1	d ansigun t	RHITCUT
Hydrogen Fluoride (Grassland) Note: * Reference: Fluorides in the E (2004), NOTE SOLETION IN THE PROPERTY OF T	nvironment, Weir	istein, LH and Davis	on, AW, CABI Publish	ing	i en e acodon d	introvice.
(SOUND TO THE STATE OF THE SECOND	and superiors of	and the property	CONTRACTOR THE ISS	Research Control of President Control	a ana amama	3 33 2 3 5 5 5 5 C

Nitrogen Deposition

An assessment of nitrogen deposition was undertaken in relation to site-specific Critical Loads. Critical Load data for nutrient nitrogen deposition that were obtained from the APIS and SCAIL websites. The lower critical load for nitrogen deposition of 10 kgN/ha/yr at the various receptor locations was taken from the APIS website, which also showed that existing levels of nitrogen deposition currently exceed the lower critical loads to the lower critical loads.

Nitrogen deposition rates associated with emissions from the BEF and the clean blomass plant were calculated according to the method recommended by the Environment Agency⁵ in AQTAG 06, and as used by Laxen and Marner in a study carried out in support of the development of the

⁶ AQTAG 06, Technical Guidance on Detailed Modelling Approach for an Appropriate Assessment for Emissions to Air, Ji Ping Shi, Environment Agency Air Quality Monitoring and Assessment Unit, 20th April 2010.
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MG 8H 80 114 ðÖJH YOUR 60.IH FIL03 01.93 11,315 St 18 CHIH 141.44 86.05

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Dorset and Poole, Local Waste Plan6. The method involves the calculation of the annual deposition rate from the annual Process Contribution and the deposition velocity for NO2 using dehicle movements into and out of the Eco site following the comprehener noiteups, enlyellen ed

Deposition Rate (ug m²s¹) Deposition Velocity (m s¹) × Concentration (ug m²) Laxen and Marner commented that NO_X deposits to vegetation mainly via uptake of hitrogen dioxide through stomata, and that nitric oxide does not deposit at a significant rate. Environment Agency guidance recommends using a factor of 70% for the conversion of NO_X to NO₂ to provide a worst case basis for assessment of long term impacts. Accordingly, this conversion rate was used as the basis for calculating the hitrogen deposition rates associated with emissions of NOx from the BEF and the clean biomass plant? Only dry deposition was considered by Laxen and Marner as wet deposition effects, close to the point of release, are considered to be much less significant than dry deposition and the beautiful seem of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered to be much less significant than dry deposit or an arm of the considered than dry deposit or arm of the considered to be much less significant than dry deposit or arm of the considered to be much less significant than dry deposit or arm of the considered than dry d

Wet deposition of the emitted pollutants this close to the emission source will be restricted to wash-out, or below cloud seavenging. For this to occur, rain droplets must come into contact with the gas molecules before they init the ground. Falling raindrops displace the air around them, effectively pushing gases away. The low solubility of nitrogen dioxide and nitric oxide means that any scavenging of these gases will be a negligible factor.

Deposition PC The results from the nitrogen deposition rate calculations are summarised in the following table and are based upon emissions of NO_X and NH₃ from the BEF and the clean biomass plant.

Table 4 Process Contribution to Nutrient Nitrogen Deposition Due to Emissions of NO_X and NH₃ State from the BEF and the Clean Biomass Plant

1.	22%:	, DE, GIIG 11.0 0	2.2	· Lander of the control	82.0
Recepto	r Name - De	position (kgN/ha/yr)	Deposition (kg/V/ (PC as % Lower Cittle		Deposition (kg/Wha/yr) : as % Lower Critical Load)
HL01	ja er	0.10	1.0%		13%
HL02	Mgg "	0.14	1.4%		14%
HL03	Wis	0.23	2.3%		14%
HL04	2005 00-1-3	0.25	, 2.5%	Service Control of the Control of th	14%
HL05	65 644 2003	0.69	6.9%	**************************************	16% 🚆 📉
HL06	or Va sor r	0.22	2.2%	# W.	14% 😲
HL07	40/32%	0.08	0.8%	e de la companya de	13% ⁽¹⁾
HL08	efftis	U.20	2.6%	***	14%
HL09	45 GA	0.09	0.9%	gles:	13% ^{df ()}
HL10	470%	0.05	0.5%	**	13% ^{(37,47}
HI 11		0.05	0.5%		19%

 $^{11.11}_{H_1^{12}}$ mon cliff that $^{0.05}_{0.03}$ to analysims of $^{0.5\%}_{0.5\%}$ uditts nonreceed negative. That were always of $^{13\%}_{0.5\%}$ BEF and the clean biogogies plant, and the week deposition 🥳 📆 polated with velgin movements to and from 1/8 neveropment site, is 1/8/10/10 to more their 1/8/10 of the site-specific Lower Critical Load, wighthe highest value regenerating -8% of trencritical Load. Welch

The results show that nitrogen deposition attributable to emissions of NO_X and NH₃ from the BEF and the clean biomass plant is predicted to be less than 1% of the site-specific Lower Critical Load, apart from the nearest receptor locations, where the highest value represents ~7% of the Critical Load. Despite the fact that the Critical Load for nitrogen deposition is currently exceeded at the above locations, the magnitude of the Process Contribution is small and if probably not measurable with any reasonable degree of accuraby no the abivorg of beau vinerum

When introgen deposition attributable to the estimated background NO2 concentration for the area of 12.8 µg m⁻³ is taken into account with the increase in concentration due to emissions of NO_x and NH₃ from the two new combustion plant, the resulting PEC value represents a value of ~13% of the lower critical load and can therefore be screened out as insignificant.

It should also be noted that exceedence of a Critical Load is not a quantitative estimate of damage to a particular habitat, but represents the potential for damage to occur. There is no evidence in the available literature to indicate that the above habitats are suffering as a consequence of nitrogen deposition from nearby sources. Accordingly, on this basis, the incremental increase in nitrogen deposition attributable to emissions of NO_X and NH_3 from the BEF and the clean biomass plant is small and is unlikely to have a measurable effect on the

³⁵⁰ O ⁶ An Assessment of Possible Air Quality Impacts on Vegetation from Processes Set out in the Bournemouth, Dorset & Poole Waste Local Plan, Air Quality Consultants Ltd, April 2005 Page 4 of 8



Dorset and Poole, Local Waste Plane, The methaptical and Isolgologelevoda editio vingethi deposition rate from the ennual Process Contribution and the denoisemanishey for the denoisemanishey for the denoisemanishey.

Vehicle movements into and out of the Eco site following the comprehensive re-development of the Eco site will result in a worst case increase in NO_x concentration of 1.3 µg m³ at the nearest point within the Parley Common SSSI (Receptor No. HL08), with an associated nitrogen deposition rate of ~0.13 kgN/Ha/vr.

deposition rate of 13 kgN/Hayr and the process of the process of the sense of the process of the process of the sense of the process of the p

Table 5 Process Contribution to Nutrient Nitrogen Deposition Due to Emissions of NO_X and NH₃ from the BEF, the Clean Biomass Plant and Vehicular Emissions Associated With Deliveries

To and From the Eco Site*

Receptor		tion (kgN/halyr) % Lower Critical		ion (kgN/halyr) % Lower Critical
gir Name	(kg/Vhaon)	Load)	(gNhalyt)	Losd)
HL01 JUE	q esemoi <mark>o.23</mark> :012 em 3ne 4318	i s a% m ont a Hizi bina ya	i/i <mark>2.¶</mark> anoisaime noqu i	2 21% 1 616 bns
HL02 JAVA b	n Due to Emissi $\pmb{6500}$ of N O_{8} en	oit 3% no(1 nepartiVitne)	eas Contribution to 1% th	Table 4 #15 c
HL03	0.36	HOMBUR Plant 44	m 2/2 0 and has T30 and	22%
HL04	0.38	4%	2.2	- 22%
HL05	(1Y'0.82(cd) nonless qu'i	8% North toll its imposed	2.7 (splentilling) subgrees ()	27% in retrievest
HL06	(bec.) (60352 reword of the 123%)	113% I STATE OF THE STATE OF TH	e e	22%
HL07	0.21	2%	4 .1	2170
HL08	0.39 🔭	4%	hile pur	2470
HL09	0.22	270	2.1	21%
HL10	0.18 ₁₈₁₁	2%	2,0	20%
HL11	0.18	2%	2.0	20% 50.00
HL12	0.16 jog ,	2% _{300 m}	2.0	20% co.H
HL13	0.15 _{(4.6.1}	2%	2.0	20% 20.04
HL14	0.15 _{808 8}	2% (M) (1)	2.0 pg p	20% DOM
HL15	0.16 886.8	2% (#8.0	2.0 ann	20%

The results show that nitrogen deposition attributable to emissions of NO_x and NH₃ from the BEF and the clean biomass plant, and the worst case deposition associated with vehicle movements to and from the development site, is predicted to more than 1% of the site-specific Lower Critical Load, with the highest value representing ~8% of the Critical Load. When considered in conjunction with the estimated NO₂ background concentration of 12.8 µg m⁻³ the associated PEC values are ~20% of the lower critical load for nitrogen deposition, and can be screened out as insignificant.

The BEF development will involve decommissioning the four large diesel generators that are currently used to provide all on-site electrical requirements. This will result in a net reduction in emissions of NO_x from the Eco site, and the associated nitrogen deposition within the surrounding heathland habitat. The results for the diesel generators are presented in the following table.

Table 6 Process Contribution to Nitrogen Deposition Due to Emissions of NO_x from the Four Diesel Generators

						a osis oluaria	
Receptor Name	Discosition (id	aNitialist	Deposition	(kgN/hakyr)	"lideri nelubit	amage to a pai vidence in the	di
10.04		Tillian Tillia (BC a	Palaceusee c	t Lower Critical Los	available li	edi ni esnebi.	10
HIM	21/11 110 0.02	cs. Accordini	ដូរីព្រះ sourc	🎇 mort noitisc	deb negodic	nsequence of	00
4168	i i i i i i i i i i i i i i i i i i i	iv churshib	or areasonly	(02 1101115111111111111111111111111111111	総暦以7月11 (17 , 7, 78)	ARMH TOTACHESTS	114
PHI HLO41211	in alderuio:05	in a overlob	gots unlikely	Magne ei jue	esemble, de	LIF and the clo	.21
HL05	0.23		2.8	1%			
HL06	0.09	patricine or an experimental as we will be assu-	0.9		Sanda e a como de la c	and the second state of th	:··.
Service Control of the Control of th	A CONTRACTOR OF THE	At the second day of the Paris		Ofered a second from the second second	Section to the second of the s	of his transmission in many and	Α ==

" An Assessment of Fossible Air Quell's impacts on Vegeta**%CiO**rom Processes Set out in the 6:**00.0** mouth. Threst 6:70He. Anabello coel Rich, Air Outsity Consult that "no, April 2005 Pare 4 of a

		the state of the s			
	Receptor Name Deposition (k	gN/halyr) /DC as a Parcante	tion (kgN/ha/yr) ige of Lower Critical Load)	do 8 - Results non Ammon	781
	HL08 188 187 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1.1%	in the state of th	eoc.
	HL09 0.03		0.3%	(Liveragland) caust ys	Jug 9
	HL10 ^{6 0} 0.01		"0:1%" · · · · · · · · · · · · · · · · · · ·	ou 1282 or thres) could sale in	lasë
	ु,,,, HL11,	a si Pader klanor w	0.2% in material	can be seen, the conc	24
	-diuHL12	reckcround monitoring.	0.1%	rosure pencid. Partey Mad	dxe
.,	HL13 0.004	Jugalië in vie blii lo	0.04% NAMES OF THE RESTRICT	storty location, approxima	ew.
		ne em is sellivibs ga	0.05% 100 MOTE SHOT	cess Contribution for arti	(19C)
	AND A STATE OF THE PROPERTY OF ANY AND ADMINISTRAL PROPERTY OF THE PROPERTY OF	to durante en la responsibilità de la constitución de la mediana de demandar a que a que por constitución de l		Same and the contraction of the	

The development of the BEF at the Eco site will eliminate the need for the diesel generators, as the electrical requirements for process activities on-site will be drawn directly from the power output from the turbine associated with the BEF. Accordingly, as the generators will no longer be operational the reduction in emissions of NO_x from the diesel generators can be offset against the increase that will arise from the operation of the BEF, the clean biomass plant and the increased vehicle movements associated with the operation of the AD facility summarised above in **Table 5** above.

Table 7 Cymulative Process Contribution to Nitrogen Deposition Due to Emissions of NO_x from the BEF, the Clean Biomass Plant and Vehicular Emissions Following the Decommissioning of the Diesel Generators

HL01//2/(Green	0000 0.21 000	(% of Lower Critic		O 14		iica) Lo	
HL02	0.25	2.5%	and a second of the second of	Section Control of the Control	Oevange ment Devaktiment i		1213
HL03	0.32	3.2%	912152 971954	2.2	, HANDLING ARMA AND	22%	
HL04TH J	0.33	\$.3%	or maltinulius	2.2	n acastoni	22%	
HL05	0.59_	от выСпользаф.9%	alide of suct moltle	2.43	ot ou Chariting	24%	
HL06	0.25	om minoralisma 2.5% l	Raduction in	2.1	A GALLANIA Caratelana	21%	\$4,004,00 MADE
HL07	0.17	arotanons Gina ti7%	Composing	2.0	Service in the service of	20%	****
HL08	0.28	11001102112.8%	in envious	2.1	(vykaříV p x)	21%	
HL09	0.19	1.9%	40.00	2.0	68.0	20%	10
HL10	0,17	1.7%	100	2.0	78.0	20%	\$0.
HL11	0,16	1.6%	30.5	2.0	26.0	20%	60
HL12	0.15	_(4,6) 1.5%	0.0	2.0	86.0	20%	60
HL13	0.15	1.5%	70.5	2.0	\$6.0	20%	an.
HL14,	- 0.15	and 1.5%	in c	2.0	86.6	20%	80
HL15	.0.15	»., 1.5%	44.6	2.0	190	20%	877

As can be seen from the above results, the cumulative impact of removing the diesel generators as part of the comprehensive development, reduces the potential impact of NO_X emissions from the Eco site on nitrogen deposition within the Dorset Heathlands habitat. Although the cumulative Process Contribution values are >1% of the lower critical load, when considered in conjunction with the estimated NO_2 background concentration of 12.8 μ g m³ the associated PEC values are ~20% of the lower critical load, and can be screened out as insignificant.

Cumulative Impact of Associated Reductions in Onsite Composting Activities on a sensor As 3 part for ithe comprehensive eplanning application the composting to be carried out on site, there will be an overall #35% reduction in open air compost throughput as a result of the proposed changes. The proposed reduction in composting activities has been factored into the deposition assessment as follows, and no incomposting activities has been factored into the deposition assessment as follows, and no incompost negotion as because.

The calculation of nitrogen deposition associated with fugitive ammonia release from the open air composting activities was based upon measured data for ammonia derived from diffusion tube measurements in the vicinity of the Ecosite. The results at two locations, one on the eastern boundary of the site with the adjacent Hurn Common SSS (process plus background), and another at Parley Manor (background) were used to derive a process contribution for ammonia attributable to the composting activities on site. The results are shown in the table below.

Page 6 of 8

Table 8 Results from Ammonia Diffusion Tube Monitoring

i abie o Results from Ammonia Diliusion Tupe Monitoring		and the second second
	Deposition (kghimaiyo)	emsir vdqepan 🗅
Location	Ammonia Concentration (
Parley Manor (Background)	or. 1.7	5 1114
East of site - Hurn Common SSSI boundary (Process contribution + background)	2.8	(b) J) i

As can be seen, the concentration of ammonia at Parley Manor was 1.7 µg m³ over the exposure period. Parley Manor is regarded as a background monitoring site in view of its southwesterly location, approximately 1.5km upwind of the site in Chapel Lane. Accordingly, the Process Contribution for ammonia from composting activities at the edge of the Hurn Common SSSI is estimated to be ~1.1 µg m³.

For the purpose of the deposition assessment it has been assumed that the Green Waste compost and the CLO compost emit similar levels of ammonia during the maturation process. The ammonia concentration measured in the vicinity of the site of 1.1 µg m³, is assumed to be the Process Contribution due to the composting activities on the Eco site, and would be expected to vary in relation to the throughput of waste being composted.

Accordingly, the measured Process Contribution value to background ammonia concentrations was adjusted to reflect the ~35% reduction in throughput, giving a revised Process Contribution to background ammonia concentrations of ~0.7 µg m³. This value was then used to calculate the nitrogen deposition rates due to ammonia at receptor locations within the Dorset Heathland habitat adjacent to the Eco site.

The deum utative cresults of all proposed changes to on-site operations resulting from the comprehensive re-development are presented in the following table.

Table 9 Net Change in Process Contribution to Nitrogen Deposition Due to the Comprehensive Re-Development of the Eco Site

arantenara-ataministanina	anada karabahan anama	AARONAWAN UNIONANIYAAN AARONAWAA	. mart sandt den de commence commence commence commence comme			(A) (5.7)
Receptor Name	Dep B V	ncrease in osition Due to JEF, CEP & shicle NO _X Emissions kgN/ha/yr)	Reduction in Deposition Due to 35% Reduction in Composting (kgN/ha/yr)	Reduction in Deposition Due to Decommissioning the Diesel Generators (kgN/ha/yr)	Difference (kgN/ha/yr)	Cumulative impact of Comprehensive Development (% Lower Critical Load)
HL01	20%	0.23	-2.03	-0.02	⁸⁴ -1.81	-18%
HL02	NOW.	0.27	⁽⁾ -2.03	-0.02	178	-18%
HL03	20%	0.36	⁽⁾ -2,03	· ⁽⁴⁾ -0.04	⁰² 1/71	-17% ^{}1}
HL04	20%	0.38	^{() ()} -2.03	^{ੂਲ} ਾਂ -0.05	1.70	-17%
HL05	WUS.	0.82	-2.03	-0.23	°-1.44	-14%
HL06	16.0%	0.35	-2.03	^{⊕(c)} -0.09	-1/77	-18%
HL07	480%	0.21	OS -2.03	-0.05	-1.86	-19%
HL08		0.39	040.112.03	entire to act of \$10.50 the entire to	-1.75	-18%
HL09 HL10 HL11 HL12 HL13 HL13 LHL14	onaa o	016 0000 2 006 W 000 40 015 0 04 8	lesina <u>203</u> 01 and i St to n :203 100anc	epositai <mark>ro 6</mark> :11 in the 100 or 176 o	11/11/11/1 <mark>1/.88</mark> (12/2) 11/5/11/1 3/11/88 /11/11/1	เอาศ อง <mark>ปัจใ</mark> นกบอ เออกเ พย เออก พห
HL15				ower crit eoolo oad, and		ona ao 4 19% 039

Values in green represent a decrease when compared to the current situation. As can be seen, the results show that the cumulative impacts of the comprehensive re-development of the Eco site is likely to cresult in a significant overall seduction in nitrogen deposition within the surrounding Porset Heathlands habitate even as a filly great, and the beinge and of gracegories

The reduction represents on average; a value equivalent to \$17% to \$19% of the Lower Offical Load for nitrogen deposition in the vicinity of the Ecosite. The one exception is Receptor Not HLQ5, which is closest to the chimney of the BEF, with associated higher deposition rates. Nevertheless; the assessment confirms that nitrogen deposition at Receptor HLQ5 will still be \$14% lower when the comprehensive redevelopment of the iEco site has been completed, compared to the situation associated with the existing operationally one of to gradual distance. Acid Deposition seeong a syriah of beau erew (bringsbad) notably valued is reittons beautiful to be a seed of the property of the periods of the second control of the seco

A similar approach was adopted for the assessment relative to the critical load functions for acid

deposition at the various receptor locations within the Dorset Heathland habitat. As was the case with nitrogen deposition, the literature data indicate that the Critical Load for acid deposition is currently exceeded at the receptor locations around the Eco site. The assessment followed the same procedure that was used in the assessment of nitrogen deposition, and the results from the cumulative impact assessment for the various activities associated with the comprehensive re-development of the Eco site are summarised in the following table.

Table 10 Process Contribution to Acid Deposition - Cumulative Impact Due to the Comprehensive ಾRe-development of the Eco Site

Receptor	Increase in Deposition Due to Emissions of NO _X , SO _X	Reduction in Deposition Due to Decommissioning of	Reduction in Deposition Due to	Cumulative Impact of the Comprehensive Re-
Name	HCl, HF & NH, from the BEF, CBP & Vehicles (keg/ha/yr)	Diesel Generators (keq/ha/yr)	35% Reduction in Composting (kea/ha/yr)	development (këq/ha/yr) N/∃⊆∋G
HL01 HL02	ing and $^{0.05}_{0.07}$ bas pai	ontigurations of exist	on: Propphed rec	
HL03 🞾	incressorio permitte	plant an ciqo.co cesses	i wa n ƙ olaacii dubo	development; intr
(HL04 √	Nonment Middlevia	ess roac ⁰⁰ 0ntial rea	il widen \\ \@of acc	Africa (1965) (1964) (1964)
HL05 ~	0.26			new land 619 ping
HL06	0.09			
HL07	0.04	-0.003f9810U	VOITS 20144 VV , STIG.	Location: Moapel L
HL08	0.11	-0.008	-0.144	-0.04
HL09	l beviete 0.04 , nation 314	ove date \$19.90 March 2r		Thank you <mark>9b9 your c</mark>
HL10	0.03	ove date <mark>\$09.9-</mark> March 21 100.0-	-0.144	, , , , , , , , , , , , , , , , , , ,
HL11	0.03	-0.001	-0.144 ·CTUS (local of the March
HL12	0.02	-0.0005	-0.144	-0.12
. HL1318	ni evuene c o.o2 esconua v	notutate 10.0003 had pildu	a latne a:144 deb-nos	Natural En cho nd is a
eHL141 i	una triasan <mark>0.02</mark> titariari ar	that hanto 0002 has her		natural em él-9 nment
HL15	0.02	0.0004	sere o <mark>0,144</mark> uditino s	generation ^{§1.0} heroby

Values in green represent a decrease when compared to the current situation. As can be seen, as a result of the comprehensive re-development of the Econsite hacid deposition in the surrounding Dorset Heathlands habitat is likely to be significantly lower than that associated with current operations. The one exception is at the nearest receptor location to the chimney of the BEF (Receptor No. HL05), although the estimated increases at this location is small and OM probably not measurable with any reasonable degree of accuracy. Exceedence of a Critical Load is not a quantitative estimate of damage to a particular habitat. but represents the potential for damage to occur. There is no evidence in the available literature to indicate that the above ecological receptors are currently suffering as a consequence of acid with the conclusions reached for actial levels of these politients at a carry and enrual average rate in relation to there being no likely significant effects on the nearby specially protected heathland.

Geoff Fyre

Deposition assessment relative to Ordical Loads

N2 deposition, the conclusion for the combined deposition for BEF. Clean Biomass and Venicular emissions represents between 1-8% of the Cribcal Level for the lower value of the range heathfact. This clearly taggers the consideration of likely significant effect. Which is 200 rank 2018 the lower Crincal Level.

Natural England concurs with the view that the contribution from the discoil generators may be discounted for both nitrugen deposition and NOx considerations.

The modification in ongoing processes eg IVF (ofisite compositing) by 35% by saturia will have a consequent reduction in emissions of nitrogen deposited on the nearby neathly as historer Edigland remains unconvinced by the applicants assertion of a 111 offect from different processes (GCC and

Date:

25 March 2015

Our ref:

139058

6F Environmental 118

he various recoptor locations within the Dorset Heathland habitat. As was the case with refrequent deposition, the literature data indicate that the Critical Load for acid SEASON MISSION THE SCRIPT TO CONTROL THE STATE OF THE STATE OF THE SEASON THE STATE OF THE STATE assessment of nitrogen deposition, and the results from the (www.siperson.compact assessment for the various activities associated with the comprehensive re-development of the Foo site and even comprehensive. veleasing it of the Eco site are summarised in the following table.

30.14

Table: **anteno**ss Contribution to Acid Deposition — Cumulative Impact Due to the Comprehensive LDB NWDIevelopment of the Lico Site

Cumulative Impact of the Commensive Re-Dear Mr Fynes

Reduction in Deposition Due to 35% Reduction in Composting

Reduction in Deposition Duc to Decommissioning of Diesel Congrators (wedstudy)

oud contacond in seaso 7 0300 060 3900 salt mont child & TH 10 th SEF, COP & Vehicles

(mediation)

Planning consultation: Proposed reconfiguration of existing and consented development; introduction of new plant and processes; increase in permitted 20.34 throughput; partial widening of access road; partial realignment of Bridleway E62/29; new landscaping and associated matters.

Location: Chapel Lane, West Parley, Dorset

Thank you for your consultation on the above dated 23 March 2015 which was received by Natural England on 23 March 2015.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Values to green transentic demease whoo compared to the current situation. As can be seen Air Pollution Assessment Summary att to second elevables elevables elevables and the statement of the second elevables and the second elevables are second elevables.

Attw balcipores terit and Aerial emissions assessment critical levels and transit perbasions assessment sayent operations. The one exception is at the heeparth seeptor teathen to the chimney of the

NOx aerial emissions assessment conclusions, Natural England agrees with the conclusion reached for aerial levels of NOx at a daily and annual average rate in relation to there being no likely significant effects on the hearby specially protected heathland? (21 560 1163811) s

SO2, HF and annual ammonia aerial emissions assessment conclusions, Natural England agrees with the conclusions reached for aerial levels of these pollutants at a daily and annual average rate in relation to there being no likely significant effects on the nearby specially protected heathland.

Deposition assessment relative to Critical Loads

N2 deposition, the conclusion for the combined deposition for BEF, Clean Biomass and Vehicular emissions represents between 1-8% of the Critical Level for the lower value of the range for heathland. This clearly triggers the consideration of likely significant effect. Which is above 1% of the lower Critical Level.

Natural England concurs with the view that the contribution from the diesel generators may be discounted for both nitrogen deposition and NOx considerations.

The modification in ongoing processes eg IVF (onsite composting) by 35% by volume will have a consequent reduction in emissions of nitrogen deposited on the nearby heathland. Natural England remains unconvinced by the applicants assertion of a 1:1 effect from differing processes (GLO and

Page 1 of 2



green waste composting).

Table 9 provides a useful summary of the increases and decreases in N deposition and gives a range of 14 to 18% reduction in Critical Loads at all sites. This table includes data from BEF, CBP and Vehicle NOx emissions converted into an annual deposition rate. The applicant has assumed that reductions due to reduced composting volumes will be consistent without considering distance from the source of the emissions. However Natural England advise that the margin of reductions predicted 14-18% are such that it appears clear that even allowing a margin for error there will be an overall reduction in level of nitrogen deposition on the adjacent specially protected heathlands.

Natural England is able to advise that Natural England has **no objection** to the authority granting an approval in respect of the effects of air pollution on the Dorset Heathlands SPA and Dorset Heaths SAC.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not he sitate to contact us.

For any queries relating to the specific advice in this letter <u>only</u> please contact Nick Squirrell. For any new consultations, or to provide further information on this consultation please send your <u>correspondences</u> to <u>consultations@naturalengland.org.uk</u>.

Yours sincerely

Nick Squirrell Conservation and Planning Lead Advisor Dorset and Hampshire Team Dorset, Hampshire and Isle of Wight Area Team Natural England Mob: 07766 133697

Email: nick.squirrell@naturalengland.org.uk

green wasie composing).

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For any queries relating to the specific advice in this letter only please centact Nick Squirrell. For any new consultations, or re-provide further information on this consultation please send your confessordences to the provide trade of the second second on the consultation of the second on the second on the second of the

Yours sincerely

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